



# **MURRAY HILL ROAD AND WASHINGTON DRIVE TOWN OF VESTAL ROAD SAFETY ASSESSMENT**

**BINGHAMTON METROPOLITAN TRANSPORTATION STUDY  
DECEMBER 2017**

# ROAD SAFETY ASSESSMENT

## OVERVIEW

Road Safety Audits or Road Safety Assessments (RSA's) are a generally accepted proactive, low-cost tool to identify safety issues of transportation facilities. The Federal Highway Administration (FHWA) is encouraging states and local municipalities to use RSA's. A Safety Assessment is simply a formal performance examination of an existing or planned transportation facility by an independent, qualified multidisciplinary team. An assessment team considers the safety of all users, assesses and reports on safety issues, and suggests opportunities for safety improvements.

The Town of Vestal requested that the Binghamton Metropolitan Transportation Study review the intersection of Murray Hill Road / Washington Drive and the surrounding area for safety issues and low cost improvements for traffic calming. The area was brought to the attention of the Town by residents in the area.

## BACKGROUND

Murray Hill Road in the Town of Vestal is a collector on the Federal Aid Functional Class System. The study area is seven blocks between Lehigh Avenue / Washington Drive and Country Club Road / Washington Drive with the intersection of Murray Hill Road / Washington Drive being the focal point of the RSA. The area studied is zoned residential with Vestal Hill Elementary school at the eastern terminus of the study area at the intersection of Washington Drive and County Club Road. The study areas western terminus is at Washington Drive and Lehigh Avenue. There is an entrance to Binghamton University on Lehigh Avenue.

Murray Hill Road has an AADT (Annual Average Daily Traffic) of approximately 5,030 vehicles/day north of Washington Drive and 2,975 vehicles/day south of Washington Drive. Both streets have a posted speed limit of 30 MPH (miles per hour). Traffic counts were taken at the intersection during the morning and evening peak hours during the summer and then when Binghamton University was in session. Traffic volumes at the intersection do fluctuate and increase when Binghamton University is in session. The intersection of Murray Hill Road and Washington Drive is a two-way stop controlled intersection with stop signs on Washington Drive. Parking is allowed on both sides of the street of Murray Hill Road and Washington Drive. There are no sight distance problems at the intersection or within the study area.

There are no sidewalks within the study area. The only sidewalks in the vicinity of this study area are at the north end of Murray Hill Road near the intersection of NYS RT434. There is some pedestrian traffic in this area generated by the neighborhood, Vestal Hills Elementary School and possibly Binghamton University. Murray Hill Road is wide and has a marked edge line providing some accommodation for

pedestrians. Pedestrian issues were not identified as a problem in this area by the Town of Vestal officials.

## REASON FOR ROAD SAFETY ASSESSMENT

The Town of Vestal has received complaints from residents in the neighborhood concerning the speed of traffic on Murray Hill Road.

Residents have requested an all way stop at the intersection of Murray Hill Road and Washington Drive.

The Murray Hill Road has experienced a growth in traffic north of the Murray Hill Road / Washington Drive intersection due to the construction of the Binghamton University Tech Center.

Town of Vestal officials asked BMTS to investigate options and develop recommendations for safety of this intersection.

## ROAD SAFETY ASSESMENT TEAM

The RSA Team was composed of the following individuals:

Chief John Butler, Town of Vestal Police Department

Vern Myers, Engineer Town of Vestal

Cassandra Gascon, BMTS

Cyndi Paddick, BMTS

Scott Reigle, BMTS

John Sterbentz, BMTS

Jennifer Yonkoski, BMTS

## ROAD SAFETY ASSESMENT PROCESS

The safety assessment was conducted on May 10, 2017.

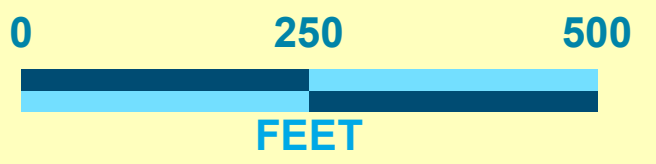
The members of the RSA team met at the site, discussed the neighborhood concerns that had been presented to the Town. BMTS reviewed with the Town of Vestal representatives the traffic counts that had been taken on Murray Hill Road and the crash reports that had been reviewed for the intersection of Murray Hill Road and Washington Drive. The team walked and surveyed the area, identifying problems and discussing possible solutions. The project location map is shown on the next page.

**Study Area: Washington Drive from Lehigh Drive to Country Club Road**



NOT TO SCALE

Vestal Hills Elementary School



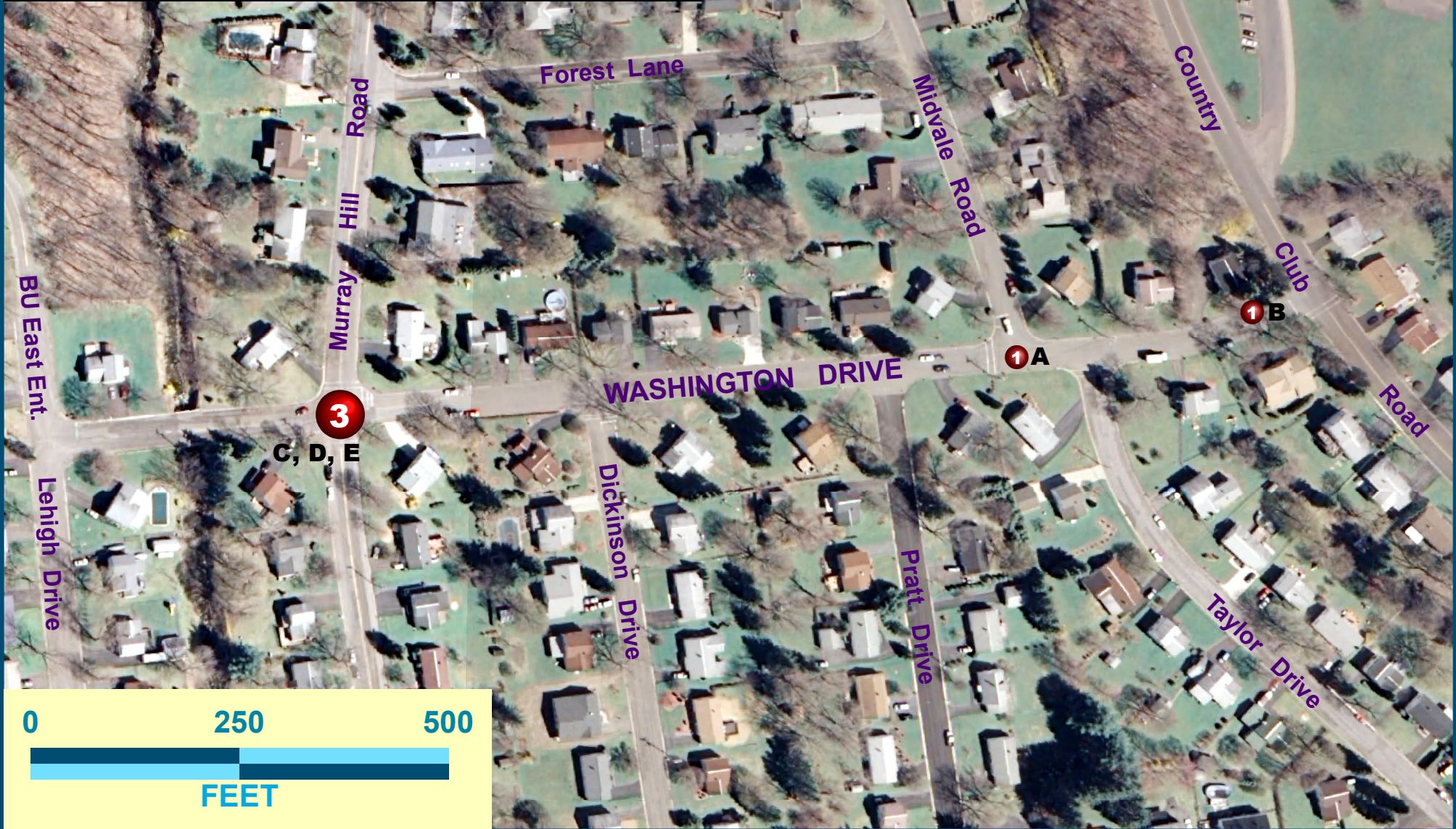
# Washington Drive from Lehigh Drive to Country Club Road Accidents 10/2013-10/2016



NOT TO SCALE

Vestal Hills  
Elementary  
School

	Date	Weather	Light	Surface	Type	# of Veh	Damage
A	1/31/2015	CLEAR	DAYLIGHT	SNOW/ICE	OTHER	2	PROPERTY DAMAGE
B	1/25/2015	CLEAR	DARK-ROAD LIGHTED	DRY	OVERTAKING	2	NON-REPORTABLE
C	9/17/2015	CLEAR	DAYLIGHT	DRY	RIGHT ANGLE	2	PROPERTY DAMAGE
D	5/9/2016	CLOUDY	DAYLIGHT	DRY	RIGHT ANGLE	2	PROPERTY DAMAGE AND INJURY
E	10/22/2016	CLOUDY	DAYLIGHT	WET	RIGHT ANGLE	2	PROPERTY DAMAGE AND INJURY



## STUDY AREA CHARACTERISTICS, OPERATIONS AND SAFETY ISSUES

The study area is a six block section of Washington Drive in the Town of Vestal. The intersections of Lehigh Drive, Murray Hill Road, Dickinson Drive, Pratt Drive, Taylor Drive and Country Club Road are all unsignalized intersections, controlled by stop signs. Murray Hill Road is a heavily utilized route that provides access to the residential Stair Tract area and also connects into Powderhouse Road (CR57) that provides north-south access to the more rural residential area of Vestal.

The area is exclusively residential with access to Binghamton University at the western terminus of the study area and Vestal Hills Elementary school at the eastern terminus. There are churches and a synagogue just north and south of the study area.

There is a Broome County bus route on Washington Drive. It is the #5, Vestal Avenue route with stops at Country Club Road and Washington Drive, Midvale Road and Washington Drive and Lehigh Road and Washington Drive. The #5 bus route runs every forty minutes during the week.

There are no sidewalks in the study area and there are no designated bike routes in the study area.

A crash analysis was completed for the three- year period 10/2013 – 10/2016. The only intersection to experience multiple crashes was the intersection of Murray Hill Road and Washington Drive. A summary of the crashes is shown on the Crash Location Map.

## ASSESSMENT FINDINGS AND SUGGESTIONS

### INTERSECTION OF LEHIGH DRIVE / WASHINGTON DRIVE

#### SAFETY CONCERNS

The intersection of Lehigh Drive and Washington Drive serves as a direct route to an entrance into Binghamton University. This is a unique situation since it is an entrance to a major university in a residential area. Lehigh Drive dead ends to the south and becomes an entrance into Binghamton University to the north.

#### OBSERVATIONS

Lehigh Drive and Washington Drive is a T-intersection, controlled by stop signs on Washington Drive and the southbound leg of Lehigh Drive. There is a BC Transit bus stop at the intersection on Washington Drive with the bus stop sign posted on the stop sign. Parking is not allowed on either street. The sight distance appears to be adequate. There is a double yellow centerline on Washington Drive.



#### RISK ANALYSIS

There were no accidents recorded at this intersection during the three years that were studied. This intersection experiences a high percentage of traffic generated by Binghamton University. There are some signing and pavement striping that could be added to improve the overall safety of the intersection.

## **SUGGESTIONS**

It is awkward to have two adjacent legs of a T-intersection controlled by stop signs with no traffic control on the third leg of the intersection. In the case of Lehigh Drive and Washington Drive the northbound approach of Lehigh Drive is a dead end with the least amount of traffic and no traffic control. Typically, the approaches of an intersection with the least amount of traffic are controlled by stop signs. At this intersection westbound Washington Drive and southbound Lehigh Drive have the higher volumes of traffic.

A third stop sign should be installed on northbound Lehigh Drive with MUTCD (R1-3P) supplemental plaques that says "All-way stop". Stop bars should also be repainted and an additional stop bar installed on the northbound approach of Lehigh Drive. The bus stop sign should be placed on a separate sign pole if the 3-Way stop is added to the stop sign on Washington Drive.

## **PRIORITY FOR CONSIDERATION**

Moderate

## **INTERSECTION OF MURRAY HILL ROAD AND WASHINGTON DRIVE**

### **SAFETY CONCERNS**

The intersection of Murray Hill Road and Washington Drive is a four-leg intersection with the lower volume Washington Drive approached being controlled with stop signs. The Town of Vestal has received complaints from residents in the area that speeds are high on Murray Hill Road and have requested that the intersection be changed to a four-way stop.

### **OBSERVATIONS**

Murray Hill Road and Washington Drive both have a double yellow centerline. Murray Hill Road also has a white edge line painted along it that does provide a visual narrowing of the road and also provides an area where pedestrians are able to walk. There are no sidewalks along Murray Hill Road or Washington Drive. There is a marked crosswalk across the south side of Murray Hill Road and also across the east approach of Washington Drive. There are stop bars on both approaches of Washington Drive. The stop sign on the eastbound approach of Washington Drive has a no parking sign on the same sign pole.

Murray Hill Road has an electronic speed sign posted for vehicles traveling southbound, just north of the Murray Hill Road and Washington Drive intersection.

Turning movement traffic counts were taken during the summer and then again when Binghamton University was in session. Murray Hill Road is the higher volume road, but traffic does increase on Washington Drive when the University is in session.



**RISK ANALYSIS**

During the three- year period that was studied there were three crashes at the intersection. All three were right angle accidents. Sight distance is not a contributing factor at the intersection. According to the Manual of Uniform Traffic Control Devices a stop sign should not be installed to control speeds and a four- way stop should not be installed at an intersection unless the volume of traffic is approximately equal on all approaches to the intersection.

**SUGGESTIONS**

There are measures that can be taken to calm traffic in areas where there are concerns of speeding and safety. The Town has already installed center lines and edge markings. Additional measures that can be taken are to install high visibility ladder crosswalks across Murray Hill Road in conjunction with the high visibility crosswalk signs that are already there. Washington Drive should also have the ladder crosswalks on each approach with a stop bar in advance of the crosswalk.

The no parking sign on Washington Drive should be placed on its own sign pole and be removed from the stop sign. Murray Hill Road appears to be adequately signed on both the north and south approaches.

**PRIORITY**

High

## INTERSECTION OF DICKINSON DRIVE AND WASHINGTON DRIVE

### SAFETY CONCERNS

The intersection of Dickinson Drive and Washington Drive is a T-intersection controlled with a stop sign on Dickinson Street. There are no sidewalks along this portion of Washington Drive, however it is in close proximity to Vestal Hills Elementary School.

### OBSERVATIONS

There is an older pedestrian warning sign posted just east of Dickinson Drive with a crosswalk across Dickinson Drive. Washington Drive has a double yellow centerline.



### RISK ANALYSIS

There does not appear to be a significant safety issue at this intersection. There are a few changes that could be made to improve pedestrian safety.

### SUGGESTIONS

Install a new high reflectivity fluorescent, MUTCD W11-2 Pedestrian sign to replace the older sign just east of the intersection. Install a stop bar on Dickinson Drive in advance of the crosswalk, and install a ladder crosswalk.

### PRIORITY

Moderate

## INTERSECTION OF PRATT DRIVE AND WASHINGTON DRIVE

### SAFETY CONCERNS

The intersection of Pratt Drive and Washington Drive is a T-intersection with a stop sign on Pratt Drive. There are no sidewalks along Washington Drive, however it is in close proximity to Vestal Hills Elementary School.

### OBSERVATIONS

There is a crosswalk across Pratt Drive. Washington Drive has a double yellow centerline.

### RISK ANALYSIS

There does not appear to be a significant safety issue at this intersection. There were no accidents at this intersection during the study period.

### SUGGESTIONS

Install a ladder crosswalk on Pratt Drive. Install a stop bar in advance of the crosswalk.

### PRIORITY

Low

## INTERSECTION OF MIDVALE ROAD AND WASHINGTON DRIVE

### SAFETY CONCERNS

The intersection of Midvale Road and Washington Drive is a T-intersection controlled by a stop sign on Midvale Road. There are no sidewalks along this portion of Washington Drive, however it is in close proximity to Vestal Hills Elementary School.

### OBSERVATIONS

There are two W1-7, large arrow warning signs, directly opposite Midvale Road. This was probably installed to emphasize that it is a T-intersection. There is a crosswalk at the Midvale Road and Washington Drive intersection that is posted with high reflective pedestrian warning signs. There is a double yellow centerline on Washington Drive.

### RISK ANALYSIS

There does not appear to be a significant safety concern at this intersection. During the study period there was one crash at the intersection and it was related to weather conditions and not attributable to the intersection.

As mentioned at the other intersections along Washington Avenue the close proximity to the elementary school encourages pedestrian activity, and wherever possible improvements should be made to enhance the safety to pedestrians.

### **SUGGESTIONS**

Install a ladder crosswalk across Washington Drive.

### **PRIORITY**

Moderate

## **INTERSECTION OF TAYLOR DRIVE AND WASHINGTON DRIVE**

### **SAFETY CONCERNS**

The intersection of Taylor Drive and Washington Drive is a T-intersection controlled by a stop sign on Taylor Drive. There are no sidewalks along Washington Drive and it is located a block from Vestal Hill Elementary School.

### **OBSERVATIONS**

There is a crosswalk across Taylor Drive and a pedestrian warning sign posted east of the intersection on Washington Drive. There is a double yellow centerline on Washington Drive.

### **RISK ANALYSIS**

There does not appear to be a significant safety issue at the intersection. There were no accidents at this intersection during the study period. The close proximity to the elementary school encourages pedestrian activity, and wherever possible, improvements should be made to enhance their safety.

### **SUGGESTIONS**

Replace the older yellow pedestrian warning sign east of the intersection with a fluorescent green warning sign. Install a ladder crosswalk across Taylor Drive with a stop bar in advance of the crosswalk.

### **PRIORITY**

Moderate

## COUNTRY CLUB ROAD AND WASHINGTON DRIVE

### SAFETY CONCERNS

The intersection of Clubhouse Road and Washington Drive is a T-intersection controlled by a stop sign on Washington Drive, just south of the entrance to the Vestal Hill Elementary School.

### OBSERVATIONS

The intersection is within a marked school zone and is signed appropriately. There is a crosswalk on the southern approach of Country Club Road and is signed with the florescent green high visibility signs.



### RISK ANALYSIS

During the study area there was one accident recorded just west of the intersection. There were no accidents recorded at the intersection. This intersection is an important access to the school for children living in the adjacent neighborhood and walking to school. Wherever possible, improvements should be made to enhance their safety.

### SUGGESTIONS

Install a ladder crosswalk across Washington Drive and the south approach of Clubhouse Road. The crosswalk signing is adequate on Clubhouse Road, but similar florescent green crosswalk signs should be installed on Washington Drive. A stop bar should be installed on Washington Drive in advance of the crosswalk.

### PRIORITY

High (due to the adjacent school)

## OVERALL OBSERVATIONS AND RECOMMENDATIONS

Neighborhood concerns at the intersection of Washington Drive and Murray Hill Road prompted the Town of Vestal to request the assistance of BMTS in completing a road safety assessment. BMTS staff reviewed the intersection along with the other intersections along Washington Drive.

Crashes were reviewed at the Murray Hill Road intersection along with all of the other intersections on Washington Drive. There did not appear to be a serious problem at any of the intersections in this area. The area is residential with a few churches and a neighborhood school, and the volume of traffic reflects this use. The only unique characteristic, is that there is an entrance to Binghamton University off of Lehigh Drive, that motorists access from Murray Hill Road.

The area is posted with a 30 MPH speed limit. Residents have reported a speeding problem along Murray Hill Road. During our site visits to the area, this was not observed, but we were only there at limited times during the day. Enforcement is a key component of speed reduction. Proactive measures like the installation of a portable speed trailer or the semi-permanent speed sign that the Town installed on Murray Hill Road are helpful.

The intersection of Murray Hill Road and Washington Drive was evaluated for the installation of a four way stop. However, there are standards set by the FHWA Manual of Uniform Traffic Control Devices that guide installation. The warrants were not met at this intersection. Installation of a four-way stop to reduce speed is not criteria. Unwarranted four-way stops have the potential to increase crashes rather than reducing them.

An alternative to a four- way stop would be to install a mini- roundabout at the intersection. This is a good design tool for a neighborhood setting that reduces speeds and calms traffic. It is not as expensive as a larger roundabout and can be tried as a temporary measure with pavement markings and traffic cones or delineators. They have proven to be very effective in some areas. BMTS staff can provide additional information if the Town of Vestal is interested.

There are low cost more immediate improvements that can be made at the intersection that may help calm traffic. Pavement markings tend to attract the motorist's attention and slow down traffic. This can be achieved by adding high visibility (ladder) crosswalks at the Murray Hill Road and Washington Drive intersection and stop bars on the Washington Drive approaches. It is important that pavement markings be maintained for maximum visibility.

The entire study area should have ladder crosswalks and stop bars installed where appropriate as recommended in the individual intersection review. The pavement markings along with the appropriate fluorescent high reflectivity pedestrian signs and crosswalk signs will draw attention to the area and provide for safer pedestrian flow.

## CONCLUSIONS

This roadway assessment has been prepared to assist the Town of Vestal in identifying opportunities to improve safety within the area studied. The Road Safety Assessment is based on the information that was available at the time of the field review. The suggestions in the report are for the consideration by the Town. They are not intended to serve as design or operational recommendations.

The report does not preclude the identification of additional issues pertaining to safety by the Town, or the emergence of new issues over time.

It is recommended that the Town of Vestal review the report; document their responses to the issues identified in a formal response; and track the implementation of the safety improvements prompted by this assessment.

## TRAFFIC COUNTS

# Binghamton Metropolitan Transportation Study

44 Hawley Street  
Binghamton, NY 13902

Kevin Bligh  
Murray Hill Rd. and Washington Dr.  
Vestal  
Dark and Rainy

File Name : Murray Hill Rd. and Washington Dr. AM 2017  
Site Code : 00000000  
Start Date : 8/18/2017  
Page No : 1

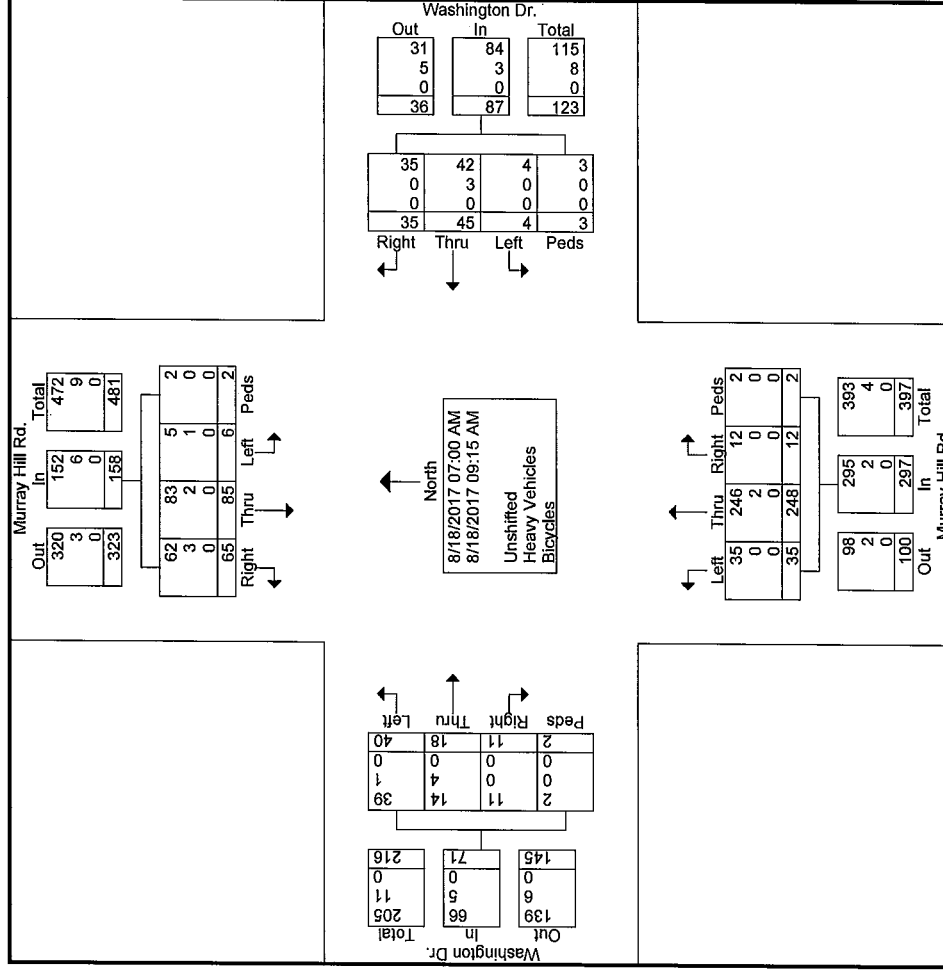
Start Time	Groups Printed- Unshifted - Heavy Vehicles - Bicycles															
	Murray Hill Rd. Southbound				Washington Dr. Westbound				Murray Hill Rd. Northbound				Washington Dr. Eastbound			
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds
07:00 AM	3	8	0	1	3	0	0	0	0	14	2	0	1	1	3	0
07:15 AM	6	5	0	0	2	1	0	0	0	18	0	0	1	2	6	1
07:30 AM	1	7	0	0	3	4	0	2	0	27	3	0	0	4	3	0
07:45 AM	11	7	1	0	2	7	0	0	0	32	5	1	0	2	2	0
Total	21	27	1	1	10	12	0	2	0	91	10	1	2	9	15	1
08:00 AM	10	8	2	0	2	7	0	0	3	40	5	0	0	2	6	0
08:15 AM	6	15	1	0	4	10	1	0	0	24	9	0	2	0	6	0
08:30 AM	6	7	0	0	6	2	1	1	5	25	4	0	1	2	7	0
08:45 AM	8	6	0	0	4	7	1	0	3	30	3	1	3	1	2	0
Total	30	36	3	0	16	26	3	1	11	119	21	1	6	5	21	0
09:00 AM	4	13	2	0	4	5	0	0	1	19	2	0	2	2	2	0
09:15 AM	10	9	0	1	5	2	1	0	0	19	2	0	1	2	2	1
Grand Total	65	85	6	2	35	45	4	3	12	248	35	2	11	18	40	2
Approch %	41.1	53.8	3.8	1.3	40.2	51.7	4.6	3.4	4	83.5	11.8	0.7	15.5	25.4	56.3	2.8
Total %	10.6	13.9	1	0.3	5.7	7.3	0.7	0.5	2	40.5	5.7	0.3	1.8	2.9	6.5	0.3
Unshifted	62	83	5	2	35	42	4	3	12	246	35	2	11	14	39	2
% Unshifted	95.4	97.6	83.3	100	100	93.3	100	100	100	99.2	100	100	100	77.8	97.5	100
Heavy Vehicles	3	2	1	0	0	3	0	0	0	2	0	0	0	4	1	0
% Heavy Vehicles	4.6	2.4	16.7	0	0	6.7	0	0	0	0.8	0	0	0	22.2	2.5	0
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
App. Total	5	10	1	0	9	8	0	0	9	21	0	0	16	22	2	0
App. Total	5	10	1	0	9	8	0	0	9	21	0	0	16	22	2	0
Int. Total	36	42	54	71	38	30	38	203	102	152	152	32	27	32	27	299
Int. Total	36	42	54	71	38	30	38	203	102	152	152	32	27	32	27	299

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44 Hawley Street  
Binghamton, NY 13902

Kevin Bligh  
Murray Hill Rd. and Washington Dr.  
Vestal  
Dark and Rainy

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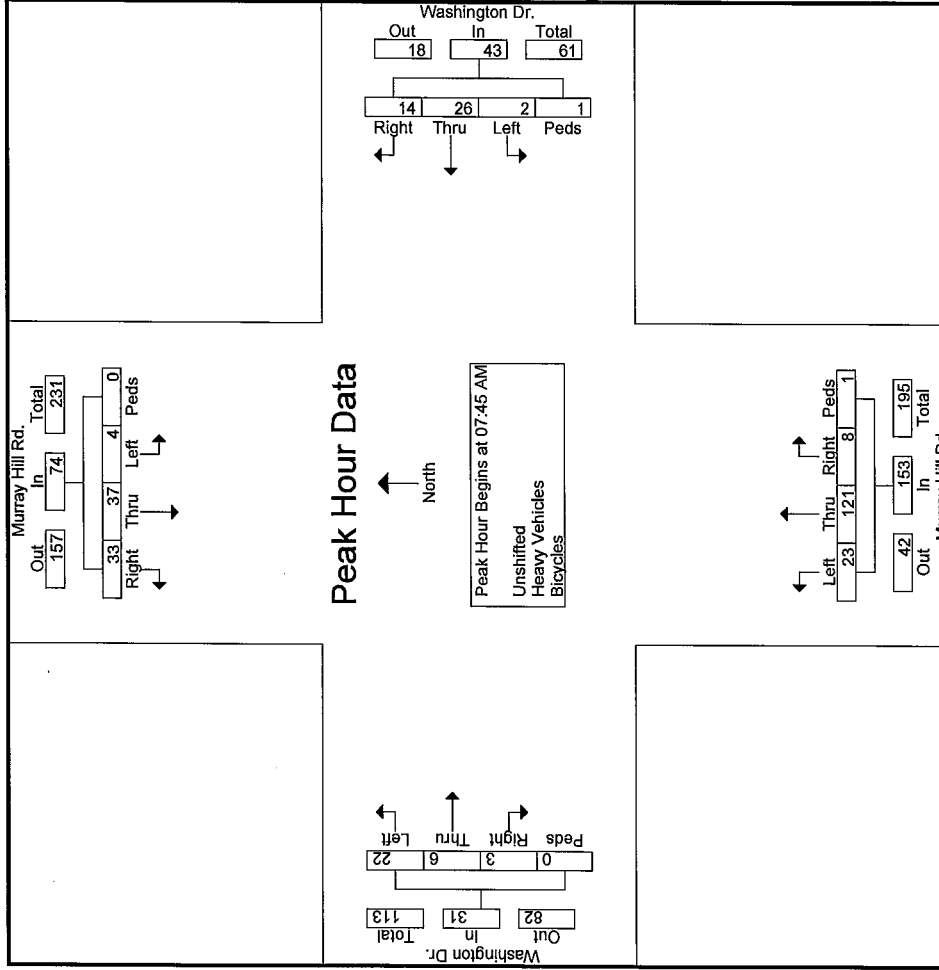
Start Time	Murray Hill Rd. Southbound				Washington Dr. Westbound				Murray Hill Rd. Northbound				Washington Dr. Eastbound								
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	11	7	1	0	19	2	7	0	0	9	0	32	5	1	38	0	2	3	0	5	71
08:00 AM	10	8	2	0	20	2	7	0	0	9	3	40	5	0	48	0	2	6	0	8	85
08:15 AM	6	15	1	0	22	4	10	1	0	15	0	24	9	0	33	2	0	6	0	8	78
08:30 AM	6	7	0	0	13	6	2	1	1	10	5	25	4	0	34	1	2	7	0	10	67
Total Volume	33	37	4	0	74	14	26	2	1	43	8	121	23	1	153	3	6	22	0	31	301
% App. Total	44.6	50	5.4	0	32.6	60.5	4.7	2.3	5.2	79.1	15	79.1	15	0.7	19.4	9.7	19.4	7.1	0	31	301
PHF	.750	.617	.500	.000	.841	.583	.650	.500	.250	.717	.400	.756	.639	.250	.797	.375	.750	.786	.000	.775	.885

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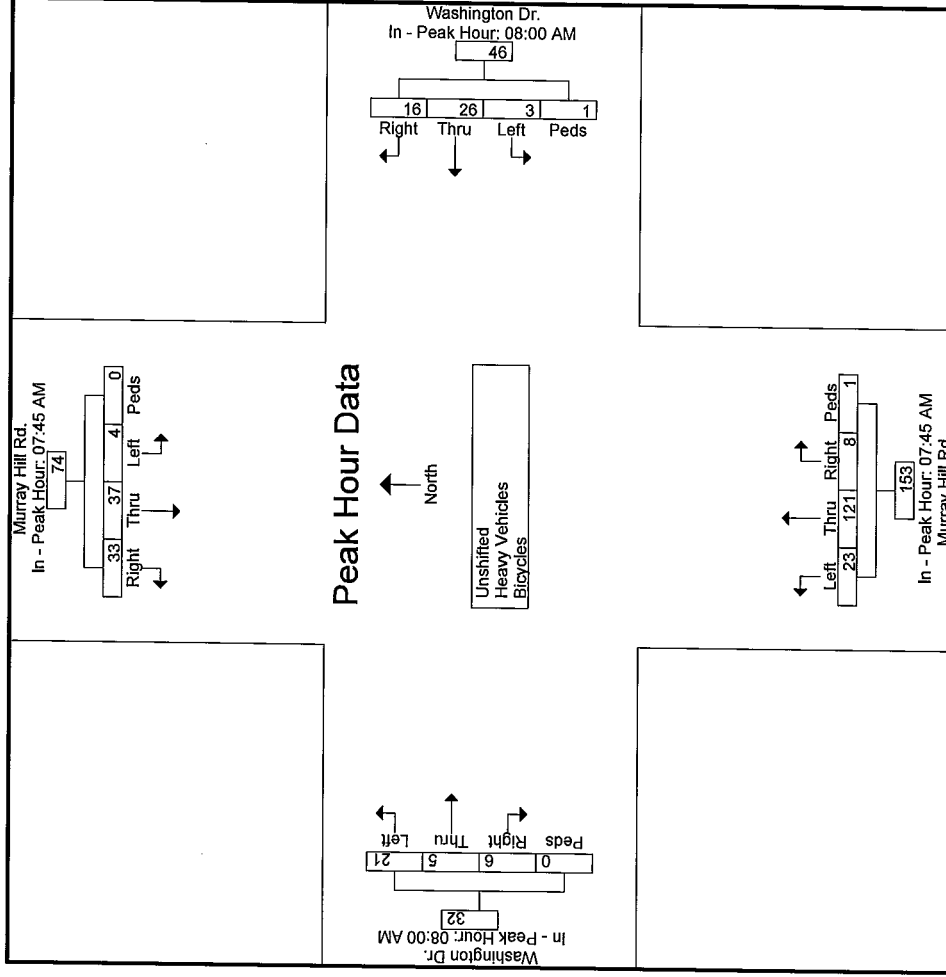
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Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	07:45 AM				08:00 AM				07:45 AM				08:00 AM								
+0 mins.	11	7	1	0	19	2	7	0	0	9	0	32	5	1	38	0	2	6	0	8	
+15 mins.	10	8	2	0	20	4	10	1	0	15	3	40	5	0	48	2	0	6	0	8	
+30 mins.	6	15	1	0	22	6	2	1	1	10	0	24	9	0	33	1	2	7	0	10	
+45 mins.	6	7	0	0	13	4	7	1	0	12	5	25	4	0	34	3	1	2	0	6	
Total Volume	33	37	4	0	74	16	26	3	1	46	8	121	23	1	153	6	5	21	0	32	
% App. Total	44.6	50	5.4	0	74	34.8	56.5	6.5	2.2	46	5.2	79.1	15	0.7	18.8	15.6	65.6	0	0	32	
PHF	.750	.617	.500	.000	.841	.667	.650	.750	.250	.767	.400	.756	.639	.250	.797	.500	.625	.750	.000	.800	

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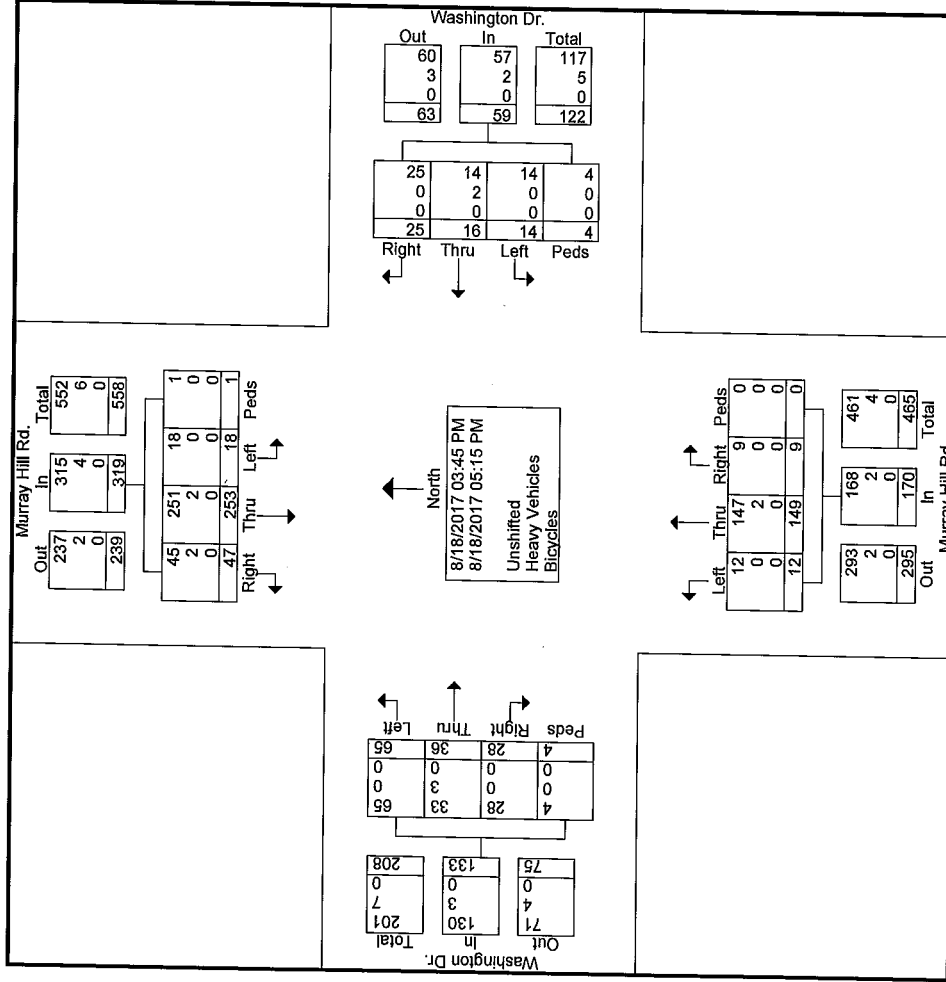


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Kevin Bligh  
Washington Dr. and Murray Hill Rd.  
Vestal  
Mostly Sunny, Partly Cloudy

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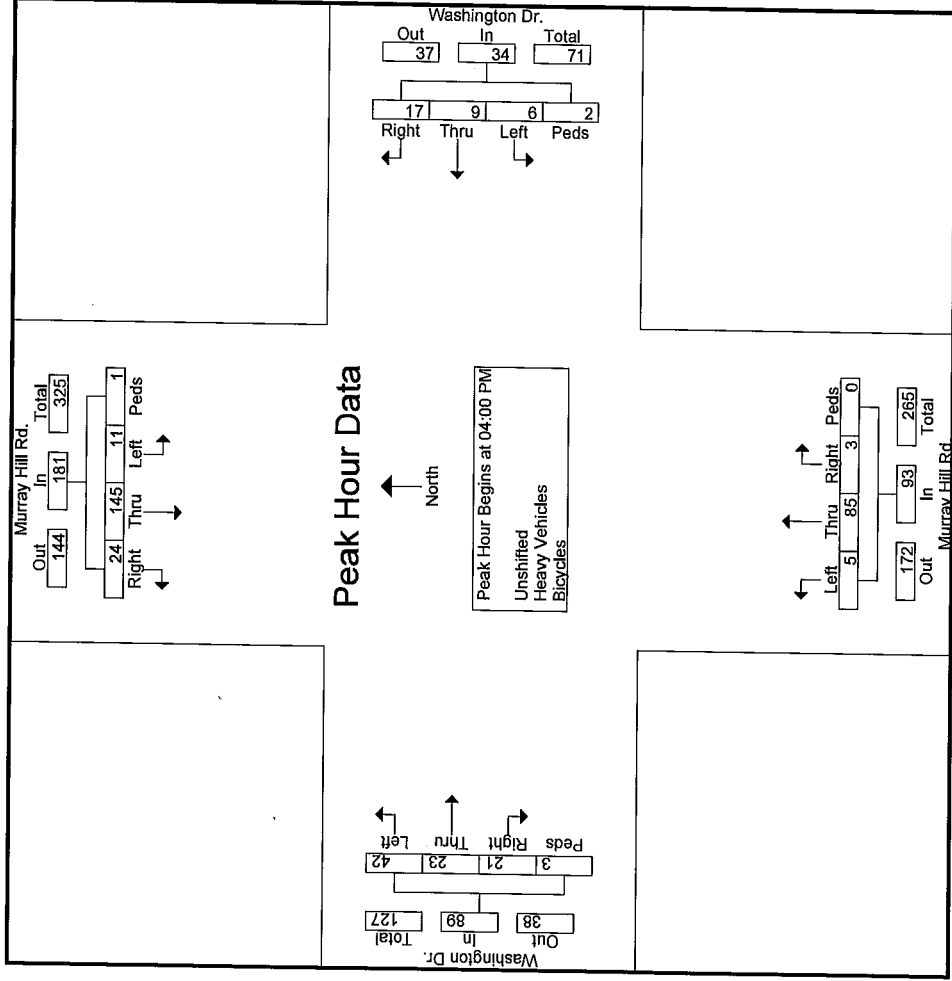
Start Time	Murray Hill Rd. Southbound					Washington Dr. Westbound					Murray Hill Rd. Northbound					Washington Dr. Eastbound					
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 03:45 PM to 05:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	4	38	2	0	44	5	2	0	0	7	1	20	2	0	23	5	10	22	1	38	112
04:15 PM	8	36	2	0	46	2	3	1	0	6	1	13	1	0	15	7	4	9	0	20	87
04:30 PM	9	28	5	0	42	6	1	1	1	9	0	25	2	0	27	4	8	6	0	18	-96
04:45 PM	3	43	2	1	49	4	3	4	1	12	1	27	0	0	28	5	1	5	2	13	102
Total Volume	24	145	11	1	181	17	9	6	2	34	3	85	5	0	93	21	23	42	3	89	397
% App. Total	13.3	80.1	6.1	0.6	92.3	50	26.5	17.6	5.9	708	3.2	91.4	5.4	0	830	23.6	25.8	47.2	3.4	586	886
PHF	.667	.843	.550	.250	.923	.708	.750	.375	.500	.708	.750	.787	.625	.000	.830	.750	.575	.477	.375	.586	.886

# Binghamton Metropolitan Transportation Study

44 Hawley Street  
Binghamton, NY 13902

Kevin Bligh  
Washington Dr. and Murray Hill Rd.  
Vestal  
Mostly Sunny, Partly Cloudy

File Name : Washington Dr. and Murray Hill Rd. PM 2017  
Site Code : 00000000  
Start Date : 8/18/2017  
Page No : 4



# Binghamton Metropolitan Transportation Study

44 Hawley Street  
Binghamton, NY 13902

File Name : Washington Dr. and Murray Hill Rd. PM 2017  
Site Code : 00000000  
Start Date : 8/18/2017  
Page No : 5

Kevin Bligh  
Washington Dr. and Murray Hill Rd.  
Vestal  
Mostly Sunny, Partly Cloudy

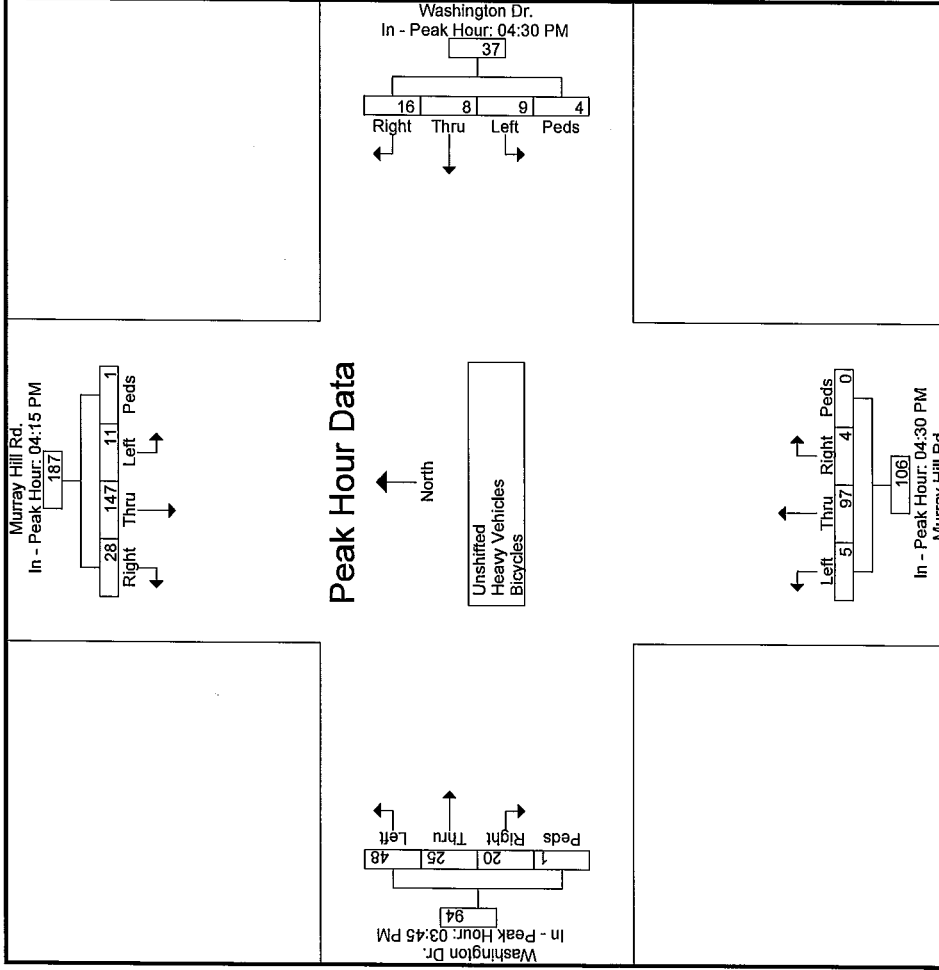
Start Time	Murray Hill Rd. Southbound				Washington Dr. Westbound				Murray Hill Rd. Northbound				Washington Dr. Eastbound								
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 03:45 PM to 05:15 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	04:15 PM				04:30 PM				04:30 PM				03:45 PM								
+0 mins.	8	36	2	0	46	6	1	1	1	9	0	25	2	0	27	4	3	11	0	18	
+15 mins.	9	28	5	0	42	4	3	4	1	12	1	27	0	0	28	5	10	22	1	38	
+30 mins.	3	43	2	1	49	5	1	1	2	9	3	15	3	0	21	7	4	9	0	20	
+45 mins.	8	40	2	0	50	1	3	3	0	7	0	30	0	0	30	4	8	6	0	18	
Total Volume	28	147	11	1	187	16	8	9	4	37	4	97	5	0	106	20	25	48	1	94	
% App. Total	15	78.6	5.9	0.5		43.2	21.6	24.3	10.8		3.8	91.5	4.7	0		21.3	26.6	51.1	1.1		
PHF	.778	.855	.550	.250	.935	.667	.667	.563	.500	.771	.333	.808	.417	.000	.883	.714	.625	.545	.250	.618	

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# Binghamton Metropolitan Transportation Study

44 Hawley Street  
Binghamton, NY 13902

Kevin Bligh  
Washington Dr. and Murray Hill Rd.  
Town of Vestal  
Dark and Dreary

File Name : Washington Dr. and Murray Hill Rd. AM 2017  
Site Code : 00000000  
Start Date : 8/30/2017  
Page No : 1

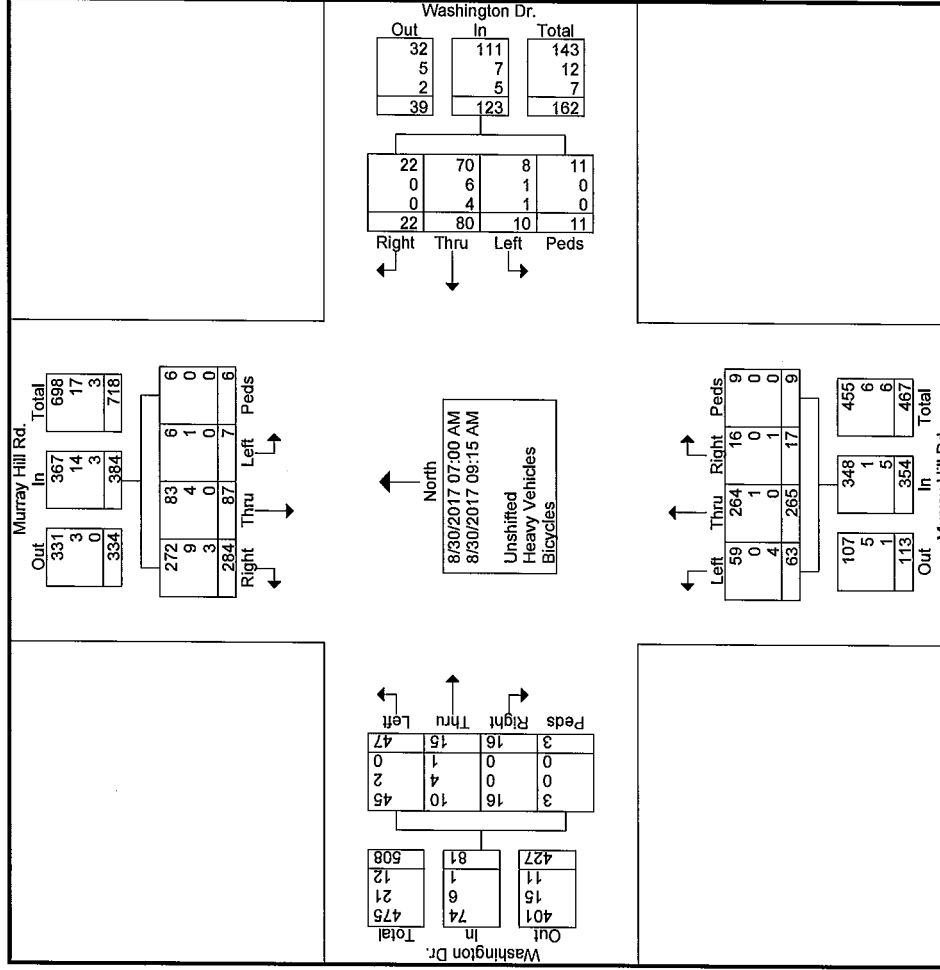
Start Time	Murray Hill Rd.										Washington Dr.										Murray Hill Rd.										Washington Dr.									
	Southbound					Westbound					Unshifted - Heavy Vehicles - Bicycles					Northbound					Eastbound					Northbound					Eastbound									
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total					
07:00 AM	5	6	0	2	13	3	3	0	4	10	0	25	4	3	32	2	3	6	0	11	0	25	5	2	32	3	0	5	0	8	3	0	5	0	8					
07:15 AM	12	8	0	0	20	3	6	0	2	11	0	25	5	2	32	3	0	5	0	8	0	25	5	2	32	3	0	5	0	8	3	0	5	0	8					
07:30 AM	27	12	1	1	41	3	9	0	4	16	0	42	10	1	53	2	2	4	0	8	0	42	10	1	53	2	2	4	0	8	2	2	4	0	8					
07:45 AM	32	14	0	0	46	2	15	2	0	19	4	35	9	1	49	1	3	6	2	12	4	35	9	1	49	1	3	6	2	12	4	35	9	1	49					
Total	76	40	1	3	120	11	33	2	10	56	4	127	28	7	166	8	8	21	2	39	8	166	28	7	166	8	8	21	2	39	8	166	28	7	166					
08:00 AM	85	4	2	0	91	3	11	0	0	14	1	24	8	0	33	0	1	4	0	5	1	24	8	0	33	0	1	4	0	5	1	24	8	0	33					
08:15 AM	23	6	1	1	31	0	5	2	0	7	2	22	4	0	28	0	2	4	0	6	2	22	4	0	28	0	2	4	0	6	2	22	4	0	6					
08:30 AM	12	5	0	2	19	1	7	1	0	9	3	30	7	0	40	3	0	5	0	8	3	30	7	0	40	3	0	5	0	8	3	30	7	0	40					
08:45 AM	14	12	2	0	28	1	9	2	0	12	3	24	2	0	29	2	1	3	0	6	3	24	2	0	29	2	1	3	0	6	3	24	2	0	29					
Total	134	27	5	3	169	5	32	5	0	42	9	100	21	0	130	5	4	16	0	25	9	130	21	0	130	5	4	16	0	25	5	4	16	0	25					
09:00 AM	25	10	0	0	35	3	8	1	1	13	3	16	3	1	23	1	1	6	0	8	3	16	3	1	23	1	1	6	0	8	3	16	3	1	23					
09:15 AM	49	10	1	0	60	3	7	2	0	12	1	22	11	1	35	2	2	4	1	9	1	22	11	1	35	2	2	4	1	9	1	22	11	1	35					
Grand Total	284	87	7	6	384	22	80	10	11	123	17	265	63	9	354	16	15	47	3	81	17	265	63	9	354	16	15	47	3	81	16	15	47	3	81					
Approach %	74	22.7	1.8	1.6	40.8	17.9	65	8.1	8.9	2.5	4.8	74.9	17.8	2.5	19.8	19.8	18.5	58	3.7	8.6	4.8	74.9	17.8	2.5	19.8	19.8	18.5	58	3.7	8.6	4.8	74.9	17.8	2.5	19.8					
Total %	30.1	9.2	0.7	0.6	40.8	2.3	8.5	1.1	1.2	13.1	1.8	28.1	6.7	1	37.6	1.7	1.6	5	0.3	8.6	1.8	28.1	6.7	1	37.6	1.7	1.6	5	0.3	8.6	1.7	1.6	5	0.3	8.6					
% Unshifted	272	83	6	6	367	22	70	8	11	111	16	264	59	9	348	16	10	45	3	74	16	264	59	9	348	16	10	45	3	74	16	264	59	9	348					
% Heavy Vehicles	95.8	95.4	85.7	100	95.6	100	87.5	80	100	90.2	94.1	99.6	93.7	100	98.3	100	66.7	95.7	100	91.4	94.1	99.6	93.7	100	98.3	100	66.7	95.7	100	91.4										
% Heavy Bicycles	9	4	1	0	14	0	6	1	0	7	0	0.4	0	0	0.3	0	4	2	0	6	0	0.4	0	0	0.3	0	4	2	0	6	0	0.4	0	0	0.3					
% Bicycles	3.2	4.6	14.3	0	3.6	0	7.5	10	0	5.7	0	0.4	0	0	0.3	0	26.7	4.3	0	7.4	0	0.4	0	0	0.3	0	26.7	4.3	0	7.4	0	0.4	0	0	0.3					
% Bicycles	1.1	0	0	0	0.8	0	4	1	0	4.1	5.9	0	6.3	0	1.4	0	6.7	0	0	1.2	5.9	0	6.3	0	1.4	0	6.7	0	0	1.2	5.9	0	6.3	0	1.4					

# Binghamton Metropolitan Transportation Study

44 Hawley Street  
Binghamton, NY 13902

Kevin Bligh  
Washington Dr. and Murray Hill Rd.  
Town of Vestal  
Dark and Dreary

File Name : Washington Dr. and Murray Hill Rd. AM 2017  
Site Code : 00000000  
Start Date : 8/30/2017  
Page No : 2



# Binghamton Metropolitan Transportation Study

44 Hawley Street  
Binghamton, NY 13902

Kevin Bligh  
Washington Dr. and Murray Hill Rd.  
Town of Vestal  
Dark and Dreary

File Name : Washington Dr. and Murray Hill Rd. AM 2017  
Site Code : 00000000  
Start Date : 8/30/2017  
Page No : 3

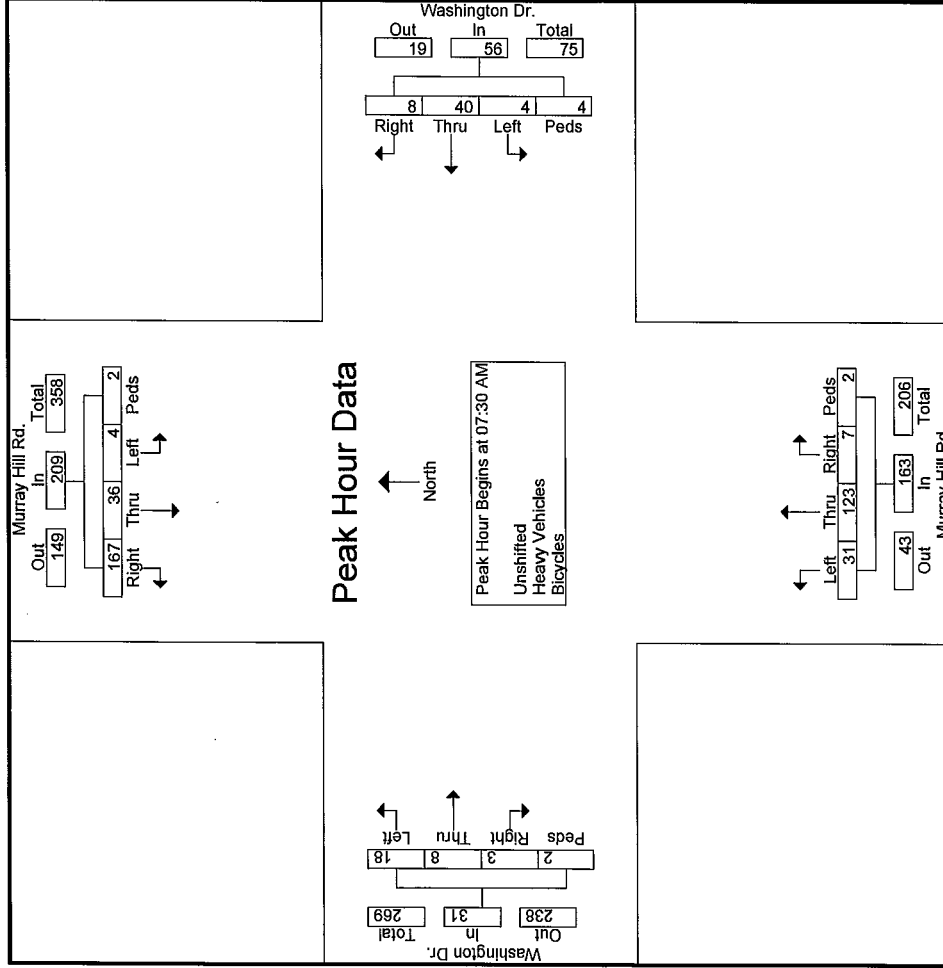
Start Time	Murray Hill Rd. Southbound				Washington Dr. Westbound				Murray Hill Rd. Northbound				Washington Dr. Eastbound								
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	27	12	1	1	41	3	9	0	4	16	0	42	10	1	53	2	2	4	0	8	118
07:45 AM	32	14	0	0	46	2	15	2	0	19	4	35	9	1	49	1	3	6	2	12	126
08:00 AM	85	4	2	0	91	3	11	0	0	14	1	24	8	0	33	0	1	4	0	5	143
08:15 AM	23	6	1	1	31	0	5	2	0	7	2	22	4	0	28	0	2	4	0	6	72
Total Volume	167	36	4	2	209	8	40	4	4	56	7	123	31	2	163	3	8	18	2	31	459
% App. Total	79.9	17.2	1.9	1		14.3	71.4	7.1	7.1		4.3	75.5	19	1.2		9.7	25.8	58.1	6.5		
PHF	.491	.643	.500	.500	.574	.667	.667	.500	.250	.737	.438	.732	.775	.500	.769	.375	.667	.750	.250	.646	.802

# Binghamton Metropolitan Transportation Study

44 Hawley Street  
Binghamton, NY 13902

Kevin Bligh  
Washington Dr. and Murray Hill Rd.  
Town of Vestal  
Dark and Dreary

File Name : Washington Dr. and Murray Hill Rd. AM 2017  
Site Code : 0000000  
Start Date : 8/30/2017  
Page No : 4



# Binghamton Metropolitan Transportation Study

44 Hawley Street  
Binghamton, NY 13902

Kevin Bligh  
Washington Dr. and Murray Hill Rd.  
Town of Vestal  
Dark and Dreaery

File Name : Washington Dr. and Murray Hill Rd. AM 2017  
Site Code : 000000000  
Start Date : 8/30/2017  
Page No : 5

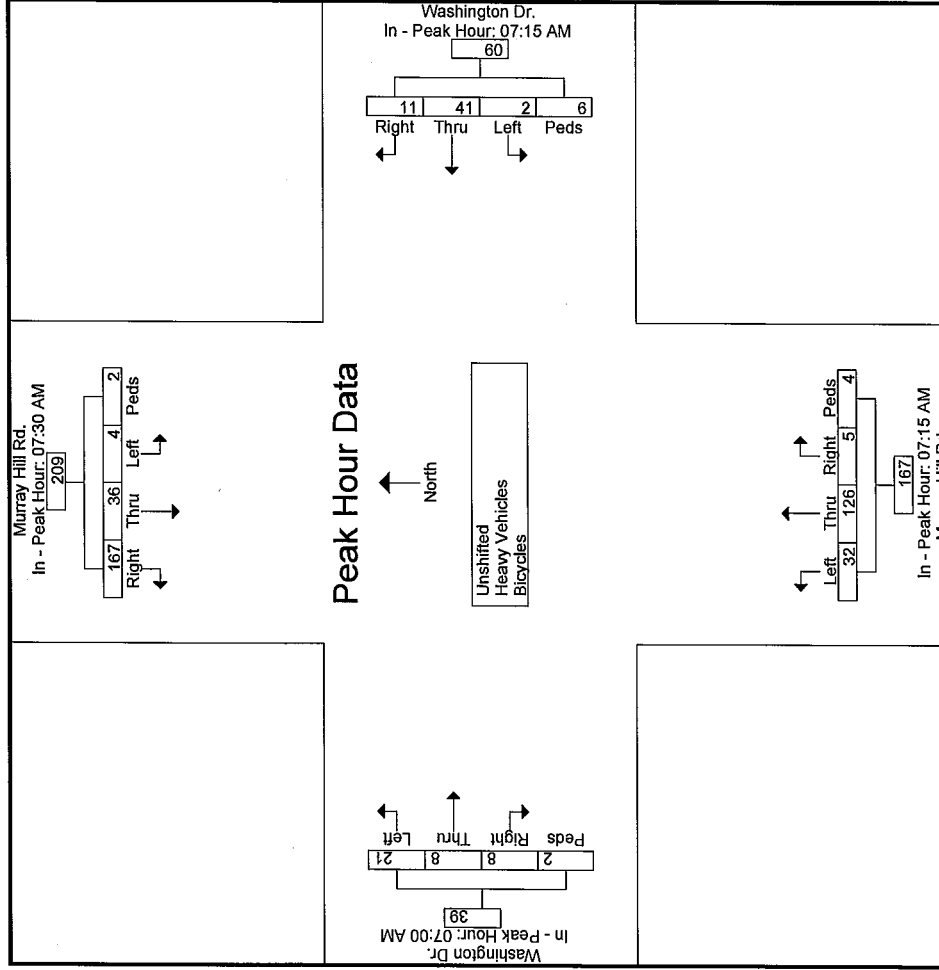
Start Time	Murray Hill Rd. Southbound				Washington Dr. Westbound				Murray Hill Rd. Northbound				Washington Dr. Eastbound								
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:15 AM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	07:30 AM				07:15 AM				07:15 AM				07:00 AM								
+0 mins.	27	12	1	1	41	3	6	0	2	11	0	25	5	2	32	2	3	6	0	11	
+15 mins.	32	14	0	0	46	3	9	0	4	16	0	42	10	1	53	3	0	5	0	8	
+30 mins.	85	4	2	0	91	2	15	2	0	19	4	35	9	1	49	2	2	4	0	8	
+45 mins.	23	6	1	1	31	3	11	0	0	14	1	24	8	0	33	1	3	6	2	12	
Total Volume	167	36	4	2	209	11	41	2	6	60	5	126	32	4	167	8	8	21	2	39	
% App. Total	79.9	17.2	1.9	1		18.3	68.3	3.3	10		3	75.4	19.2	2.4		20.5	20.5	53.8	5.1		
PHF	.491	.643	.500	.500	.574	.917	.683	.250	.375	.789	.313	.750	.800	.500	.788	.667	.667	.875	.250		.813

# Binghamton Metropolitan Transportation Study

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Town of Vestal  
Dark and Dreary

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Site Code : 00000000  
Start Date : 8/30/2017  
Page No : 6



# Binghamton Metropolitan Transportation Study

44 Hawley Street  
Binghamton, NY 13902

Kevin Bligh  
Washington Dr. and Murray Hill Rd.  
Vestal  
Sunny but Cloudy

File Name : Washington Dr. and Murray Hill Rd. PM 2017 (2)  
Site Code : 00000000  
Start Date : 8/30/2017  
Page No : 1

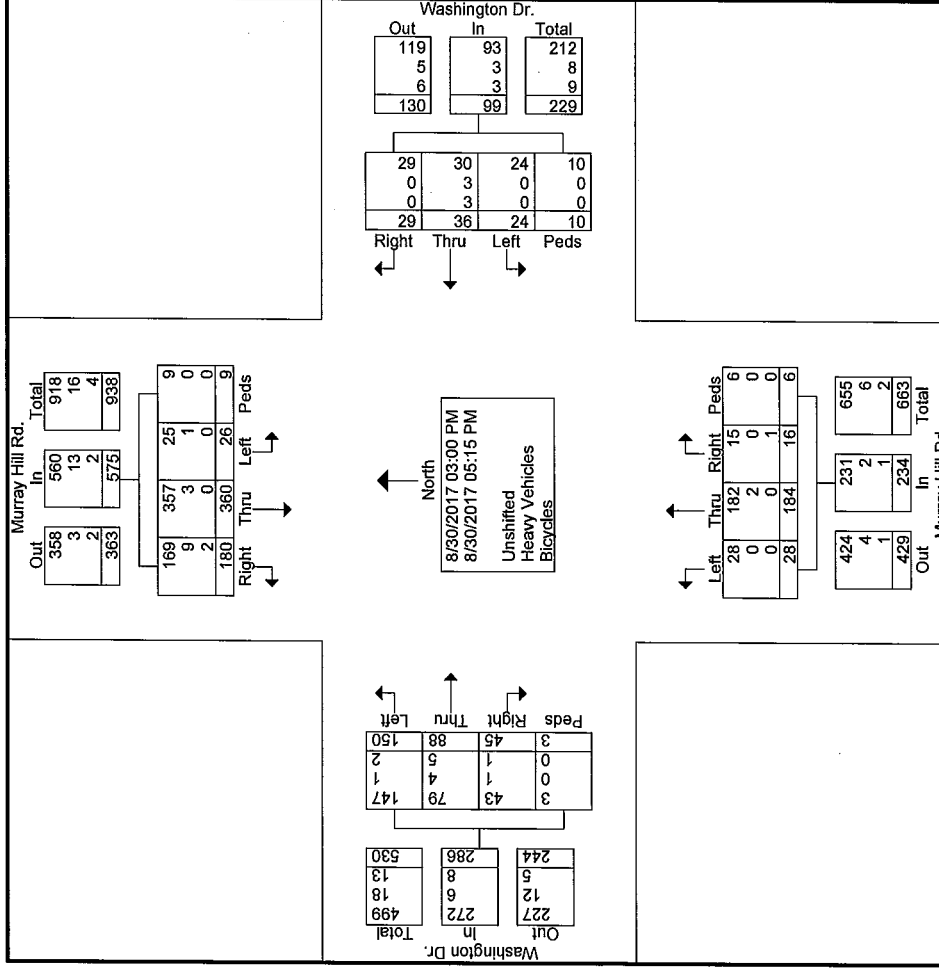
Start Time	Murray Hill Rd. Southbound										Washington Dr. Westbound										Washington Dr. Eastbound																								
	Right			Thru			Left			Peds			App. Total			Right			Thru			Left			Peds			App. Total			Right			Thru			Left			Peds			App. Total		
03:00 PM	25	24	3	0	0	0	52	52	8	2	4	2	0	0	0	8	8	1	11	11	4	4	4	0	0	0	0	16	16	7	5	5	0	0	0	0	14	14	14	90					
03:15 PM	12	18	5	2	2	4	37	37	4	2	1	1	0	0	4	4	4	3	18	18	1	1	0	22	22	22	1	0	0	22	1	16	25	1	43	106									
03:30 PM	5	28	3	2	2	38	38	38	7	2	2	4	0	0	7	7	7	2	23	23	3	3	1	29	29	29	5	1	8	11	1	25	99												
03:45 PM	13	22	2	0	0	37	37	37	7	2	3	2	0	0	7	7	7	0	20	20	3	3	1	24	24	24	3	6	6	0	0	20	88												
Total	55	92	13	4	4	164	164	164	26	8	9	9	0	0	26	26	26	6	72	72	11	2	2	91	91	91	11	37	52	2	2	102	383												
04:00 PM	30	44	2	0	0	76	76	76	20	4	7	1	8	8	20	20	20	2	15	15	2	2	0	19	19	19	6	9	14	0	0	29	144												
04:15 PM	27	44	4	2	2	77	77	77	8	2	6	0	0	0	8	8	8	1	11	11	4	4	0	16	16	16	5	11	22	0	0	38	139												
04:30 PM	25	46	0	1	1	72	72	72	14	4	3	7	0	0	14	14	14	0	17	17	4	4	1	22	22	22	5	11	20	0	0	36	144												
04:45 PM	12	43	1	1	1	57	57	57	12	7	3	1	1	1	12	12	12	0	30	30	2	2	3	35	35	35	2	9	13	0	0	24	128												
Total	94	177	7	4	4	282	282	282	54	17	19	9	9	9	54	54	54	3	73	73	12	4	4	92	92	92	18	40	69	0	0	127	555												
05:00 PM	11	44	4	0	0	59	59	59	8	1	4	2	1	1	8	8	8	3	22	22	2	2	0	27	27	27	11	9	18	0	0	38	132												
05:15 PM	20	47	2	1	1	70	70	70	11	3	4	4	0	0	11	11	11	4	17	17	3	3	0	24	24	24	5	2	11	1	1	19	124												
Grand Total	180	360	26	9	9	575	575	575	99	29	36	24	10	10	99	99	99	16	184	184	28	6	6	234	234	234	45	88	150	3	3	286	1194												
Approch %	31.3	62.6	4.5	1.6	1.6	29.3	36.4	24.2	10.1	29.3	36.4	24.2	10.1	8.3	8.3	2.4	2.4	1.3	15.4	2.3	0.5	19.6	19.6	3.8	7.4	12.6	0.3	0.3	24	24	24	1156													
Total %	15.1	30.2	2.2	0.8	0.8	2.4	3	2	0.8	2.4	3	2	0.8	8.3	8.3	2.4	2.4	1.3	15.4	2.3	0.5	19.6	19.6	3.8	7.4	12.6	0.3	0.3	24	24	24	1156													
Unshifted	169	357	25	9	560	560	560	97.4	93.9	29	30	24	10	93	93	29	29	15	182	28	6	231	231	43	79	147	3	3	272	272	272	1156													
% Unshifted	93.9	99.2	96.2	100	97.4	97.4	97.4	97.4	93.9	100	83.3	100	100	93.9	93.9	100	100	93.8	98.9	100	100	98.7	98.7	95.6	89.8	98	100	100	95.1	95.1	95.1	96.8													
Heavy Vehicles	9	3	1	0	13	13	13	3	3	0	3	0	0	3	3	0	3	0	2	0	0	2	2	2	1	4	1	0	0	6	6	6	24												
% Heavy Vehicles	5	0.8	3.8	0	2.3	2.3	2.3	2.3	2.3	0	8.3	0	0	3	3	0	3	0	1.1	0	0	0.9	0.9	2.2	4.5	0.7	0	0	2.1	2.1	2.1	2													
Bicycles	2	0	0	0	2	2	2	2	3	0	3	0	0	3	3	0	3	1	0	0	0	1	1	1	1	5	2	0	0	8	8	8	14												
% Bicycles	1.1	0	0	0	0.3	0.3	0.3	0.3	0.3	0	8.3	0	0	3	3	0	3	6.2	0	0	0	0.4	0.4	2.2	5.7	1.3	0	0	2.8	2.8	2.8	1.2													

# Binghamton Metropolitan Transportation Study

44 Hawley Street  
Binghamton, NY 13902

Kevin Bligh  
Washington Dr. and Murray Hill Rd.  
Vestal  
Sunny but Cloudy

File Name : Washington Dr. and Murray Hill Rd. PM 2017 (2)  
Site Code : 00000000  
Start Date : 8/30/2017  
Page No : 2



# Binghamton Metropolitan Transportation Study

44 Hawley Street  
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Page No : 3

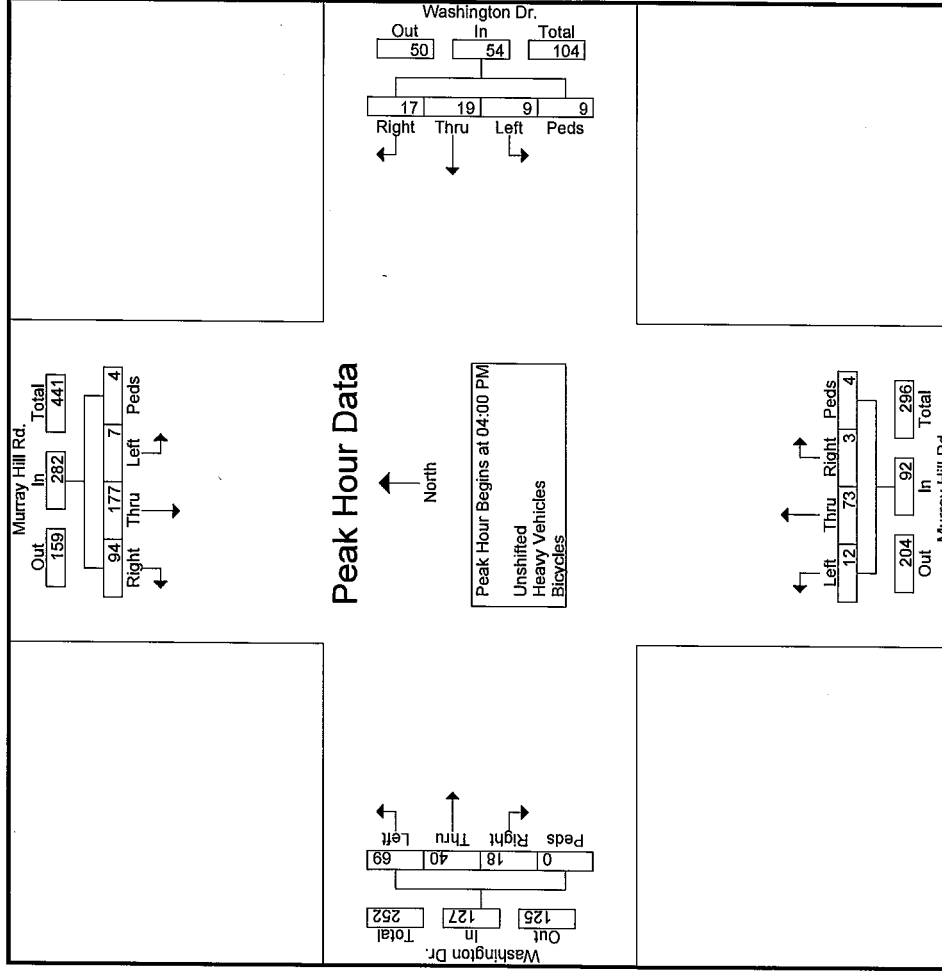
Start Time	Murray Hill Rd. Southbound				Washington Dr. Westbound				Murray Hill Rd. Northbound				Washington Dr. Eastbound								
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	30	44	2	0	76	4	7	1	8	20	2	15	2	0	19	6	9	14	0	29	144
04:15 PM	27	44	4	2	77	2	6	0	0	8	1	11	4	0	16	5	11	22	0	38	139
04:30 PM	25	46	0	1	72	4	3	7	0	14	0	17	4	1	22	5	11	20	0	36	144
04:45 PM	12	43	1	1	57	7	3	1	1	12	0	30	2	3	35	2	9	13	0	24	128
Total Volume	94	177	7	4	282	17	19	9	9	54	3	73	12	4	92	18	40	69	0	127	555
% App. Total	33.3	62.8	2.5	1.4		31.5	35.2	16.7	16.7		3.3	79.3	13	4.3		14.2	31.5	54.3	0		
PHF	.783	.962	.438	.500	.916	.607	.679	.321	.281	.675	.375	.608	.750	.333	.657	.750	.909	.784	.000	.836	.964

# Binghamton Metropolitan Transportation Study

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Binghamton, NY 13902

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Sunny but Cloudy

File Name : Washington Dr. and Murray Hill Rd. PM 2017 (2)  
Site Code : 00000000  
Start Date : 8/30/2017  
Page No : 4



# Binghamton Metropolitan Transportation Study

44 Hawley Street  
Binghamton, NY 13902

Kevin Bligh  
Washington Dr. and Murray Hill Rd.  
Vestal  
Sunny but Cloudy

File Name : Washington Dr. and Murray Hill Rd. PM 2017 (2)  
Site Code : 00000000  
Start Date : 8/30/2017  
Page No : 5

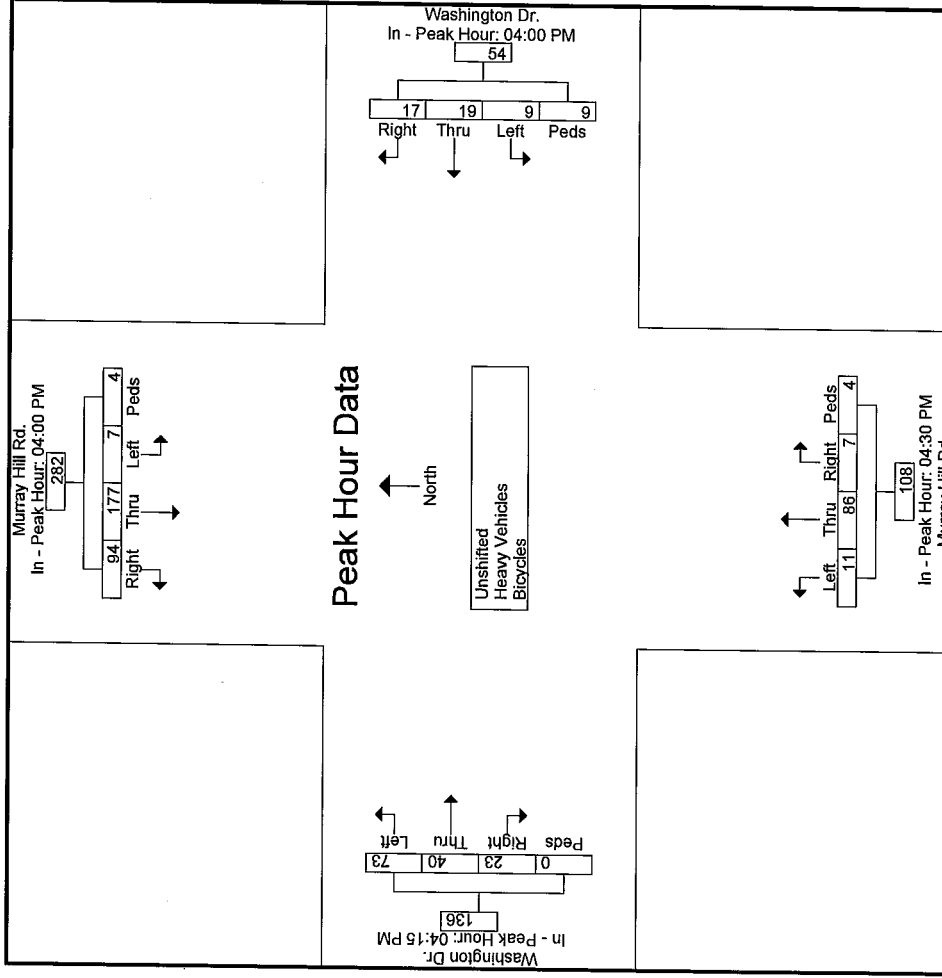
Start Time	Murray Hill Rd. Southbound				Washington Dr. Westbound				Murray Hill Rd. Northbound				Washington Dr. Eastbound								
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:15 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	04:00 PM				04:00 PM				04:30 PM				04:15 PM								
+0 mins.	30	44	2	0	76	4	7	1	8	20	0	17	4	1	22	5	11	22	0	38	
+15 mins.	27	44	4	2	77	2	6	0	0	8	0	30	2	3	35	5	11	20	0	36	
+30 mins.	25	46	0	1	72	4	3	7	0	14	3	22	2	0	27	2	9	13	0	24	
+45 mins.	12	43	1	1	57	7	3	1	1	12	4	17	3	0	24	11	9	18	0	38	
Total Volume	94	177	7	4	282	17	19	9	9	54	7	86	11	4	108	23	40	73	0	136	
% App. Total	33.3	62.8	2.5	1.4	91.6	31.5	35.2	16.7	16.7	67.5	6.5	79.6	10.2	3.7	77.1	16.9	29.4	53.7	0	89.5	
PHF	.783	.962	.438	.500	.916	.607	.679	.321	.281	.675	.438	.717	.688	.333	.771	.523	.909	.830	.000	.895	

# Binghamton Metropolitan Transportation Study

44 Hawley Street  
Binghamton, NY 13902

Kevin Bligh  
Washington Dr. and Murray Hill Rd.  
Vestal  
Sunny but Cloudy

File Name : Washington Dr. and Murray Hill Rd. PM 2017 (2)  
Site Code : 00000000  
Start Date : 8/30/2017  
Page No : 6





# New York State Department of Transportation

## SB Traffic Count Hourly Report

**STATION:** 912041

**ROUTE/ROAD:** MURRAY HILL RD  
**FROM:** WASHINGTON DR  
**TO:** NY434 VESTAL PKWY  
**FED DIR CODE:** 5  
**REF. MARKER:**  
**END MILEPOST:** 1.51  
**ST DIR CODE:** 6  
**LANES BY DIR:** 1 South  
**FUNCTION CLASS:** 17 - U Major Collector  
**FACTOR GROUP:** 30  
**DOT ID:** 211729  
**WEEK OF YEAR:** 25  
**PLACEMENT:** 50 ft N of Mercer PL  
**CC STN:**  
**ADDL DATA:**  
**NOTES 1:** NB Lane  
**NOTES 2:** SB Lane  
**TAKEN BY:** TST-TLS  
**PROCESSED BY:** DOT-JG  
**BATCH ID:** DOT-DOTR9WVW25  
**REGION-COUNTY:** 9-BROOME  
**MUNI:** Vestal-Town-0855  
**RR CROSSING:**  
**HPMS SAMPLE:**  
**I WAY CODE:**  
**COUNT TYPE:** Vehicle  
**SPEED LIMIT:**

DATE	00-01	01-02	02-03	03-04	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	DAILY TOTAL	HIGH	HIGH
6/19, Thu	17	8	7	9	2	4	27	89	155	151	116	178	188	179	198	234	231	210	192	116	120	127	89	55	2702	234	15-16
6/20, Fri	18	18	9	7	5	3	22	25	42	73	97	123	143	121	136	163	157	149	141	118	122	107	61	55	1915	163	15-16
6/21, Sat	35	30	13	7	4	17	4	20	39	62	110	135	151	149	137	122	153	147	116	93	100	75	52	25	1796	153	16-17
6/22, Sun	13	6	3	4	3	9	34	79	193	116	117	190	156	162	144	207	233	218	205	132	122	96	56	23	2521	233	16-17
6/23, Mon	15	3	4	2	2	12	43	101	162	116	117	161	170	150	156	215	254	258	157	140	174	119	49	23	2603	258	17-18
6/24, Tue	22	11	3	4	1	6	23																				
6/25, Wed																											

**AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6 AM to Fri Noon)**

18	7	5	5	2	7	32	90	170	128	117	176	163	156	150	211	246	231	179	144	158	107	55	25	2580
----	---	---	---	---	---	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	----	----	------

DAYS Counted	HOURS Counted	WEEKDAYS Counted	WEEKDAY Hours	AVERAGE WEEKDAY				ESTIMATED AADT	
				Roadway High Hour	% of day	North High Hour	% of day	Roadway North	South
6	135	3	69	508	9.1	262	8.8	5033	2105

**FACTOR**

Month	Seasonal	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Axi
6	1.11	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Created on:** 09/05/2014 12:40  
**STATION:** 912041  
**ROUTE/ROAD:** MURRAY HILL RD  
**FROM:** WASHINGTON DR  
**TO:** NY434 VESTAL PKWY  
**PLACEMENT:** 50 ft N of Mercer PL  
**REGION-COUNTY:** 9-BROOME  
**Page 3 of 3**





# New York State Department of Transportation SB Traffic Count Hourly Report

**STATION: 911020**

**ROUTE/ROAD:** MURRAY HILL RD  
**FROM:** FULLER HILL RD  
**TO:** WASHINGTON DR  
**FED DIR CODE:** 5  
**REF. MARKER:**  
**END MILEPOST:** .6  
**DOT ID:** 211729  
**LANES BY DIR:** 1 South  
**BEGIN DATE:** 10/4/2013  
**WEEK OF YEAR:** 40  
**NOTES 1:** NB Lane  
**NOTES 2:** SB Lane  
**TAKEN BY:** TST-CJL  
**REGION-COUNTY:** 9-BROOME  
**MUNI:** Vestal-Town-0855  
**BIN:**  
**RR CROSSING:**  
**HPMS SAMPLE:** 3011562  
**1 WAY CODE:**  
**COUNT TYPE:** Vehicle  
**SPEED LIMIT:**

DATE	00-01	01-02	02-03	03-04	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	DAILY TOTAL	HIGH	HIGH
10/04, Fri	19	11	13	13	9	2	13	28	44	46	81	94	93	98	112	93	98	95	93	91	67	59	67	32	1371	112	14-15
10/05, Sat	17	5	11	8	5	5	2	10	28	71	71	107	149	114	102	99	94	100	84	70	59	30	29	12	1282	149	12-13
10/06, Sun	6	8	1	3	0	6	18	42	55	73	73	123	115	70	87	159	153	186	137	122	73	63	36	19	1628	186	17-18
10/07, Mon	7	4	2	1	4	2	13	46	51	53	45	21	102	88	101	176	142	165	132	127	97	62	26	20	1487	176	15-16
10/08, Tue	9	6	4	3	1	3	16	35	46	63	71	79	100	102	100	173	181	191	150	117	95	57	38	19	1659	191	17-18
10/09, Wed	9	10	1	3	4	3	15	28	44	46																	
10/10, Thu																											

**AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6 AM to Fri Noon)**

8	7	2	2	3	3	16	38	49	59	53	76	106	87	96	169	159	181	140	122	88	61	33	19	1576	AWDT
---	---	---	---	---	---	----	----	----	----	----	----	-----	----	----	-----	-----	-----	-----	-----	----	----	----	----	------	------

DAYS Counted	HOURS Counted	WEEKDAYS Counted	WEEKDAYS Hours	AVERAGE WEEKDAY			ESTIMATED		
				Roadway High Hour	% of day	North High Hour	% of day	Roadway AADT	South AADT
6	144	3	78	266	8.7	183	12.1	2972	1386
10	1.03	1.00	1.00	1.00	1.00	1.00	1.00	11.5	1459

**FACTOR**

Month	Seasonal	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Axi
10	1.03	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00



New York State Department of Transportation  
Speed Count Average Weekday Report

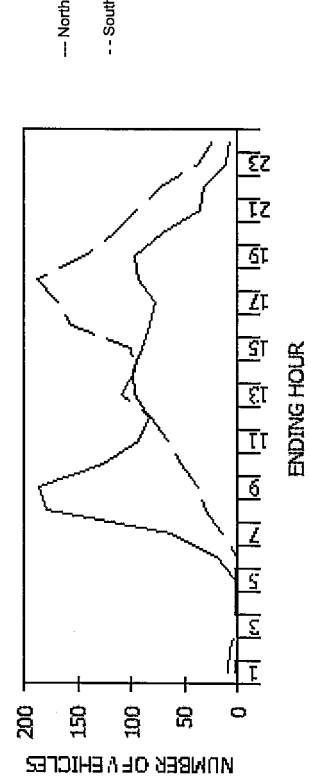
Station: 911020 Road name: MURRAY HILL RD  
 Road #: 2050 From: RADCLIFFE RD  
 To: WASHINGTON RD  
 Direction: North

Start date: Mon 10/01/2007 13:00  
 End date: Mon 10/08/2007 07:55  
 County: Broome  
 Town: VESTAL  
 Speed limit: 30

Count duration: 163 hours  
 Functional class: 17  
 Factor group: 30  
 Batch ID: DOT-SJWR9ww40  
 Org: DOT Init: JSV  
 Count taken by: Org: DOT Init: SJW  
 Processed by: Org: DOT Init: SJW

Hour	Speeds, mph																Total					
	0.0-20.0	20.1-25.0	25.1-30.0	30.1-35.0	35.1-40.0	40.1-45.0	45.1-50.0	50.1-55.0	55.1-60.0	60.1-65.0	65.1-70.0	70.1-75.0	75.1-95.0	% Exc 45.0	% Exc 50.0	% Exc 55.0		% Exc 60.0	% Exc 65.0	Avg	50th%	85th%
1:00	0	0	0	1	2	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	35.7	36.3	38.9	3
2:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	37.5	37.6	39.3	1
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
4:00	0	0	0	0	2	0	0	0	0	0	0	0	0	33.3	0.0	0.0	0.0	0.0	40.3	38.8	47.8	3
5:00	0	0	0	1	2	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	35.7	36.3	38.9	3
6:00	1	0	2	10	5	2	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	31.5	33.6	39.0	20
7:00	1	5	22	58	22	9	2	0	0	0	0	0	0	3.2	0.0	0.0	0.0	0.0	34.1	35.5	41.0	62
8:00	3	13	58	70	29	3	0	0	0	0	0	0	0	1.7	0.0	0.0	0.0	0.0	34.2	35.9	40.9	179
9:00	5	3	13	56	78	28	4	0	0	0	0	0	0	2.1	0.0	0.0	0.0	0.0	33.8	36.1	40.8	187
10:00	4	1	13	44	40	18	5	2	0	0	0	0	0	5.5	1.6	0.0	0.0	0.0	33.4	35.2	41.7	127
11:00	3	1	11	34	30	11	4	0	0	0	0	0	0	4.3	0.0	0.0	0.0	0.0	32.9	34.8	40.5	94
12:00	4	1	9	25	28	14	2	0	0	0	0	0	0	2.4	0.0	0.0	0.0	0.0	32.4	35.5	41.3	83
13:00	2	1	9	32	33	14	6	0	0	0	0	0	0	6.2	0.0	0.0	0.0	0.0	34.1	35.7	42.0	97
14:00	3	2	8	30	35	17	3	1	0	0	0	0	0	4.0	1.0	0.0	0.0	0.0	33.6	36.0	41.9	99
15:00	2	4	12	26	33	11	2	0	0	0	0	0	0	2.2	0.0	0.0	0.0	0.0	32.8	35.2	40.0	90
16:00	6	2	8	24	24	15	4	1	0	0	0	0	0	6.0	1.2	0.0	0.0	0.0	31.5	35.5	42.5	84
17:00	2	1	6	22	32	13	2	0	0	0	0	0	0	2.6	0.0	0.0	0.0	0.0	34.0	36.3	41.3	78
18:00	2	1	6	29	35	17	2	1	0	0	0	0	0	3.2	1.1	0.0	0.0	0.0	34.5	36.3	41.8	93
19:00	2	2	7	32	36	16	2	0	0	0	0	0	0	2.1	0.0	0.0	0.0	0.0	34.0	35.8	41.1	97
20:00	4	2	10	24	25	5	1	0	0	0	0	0	0	1.4	0.0	0.0	0.0	0.0	30.9	34.1	39.1	71
21:00	1	1	6	10	14	4	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	32.4	35.0	39.6	36
22:00	0	0	5	12	11	4	1	0	0	0	0	0	0	3.0	0.0	0.0	0.0	0.0	34.4	34.8	40.1	33
23:00	0	0	2	3	4	2	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	34.5	35.7	40.9	11
24:00	0	0	0	3	4	1	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	36.0	36.3	39.8	8
Avg. Daily Total	45	26	145	498	566	230	44	5	0	0	0	0	0	3.1	0.3	0.0	0.0	0.0	33.4	35.6	41.0	1559
Percent	2.9%	1.7%	9.3%	31.9%	36.3%	14.8%	2.8%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%									
Cum. Percent	2.9%	4.6%	13.9%	45.8%	82.1%	96.9%	99.7%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%									
Average hour	2	1	6	21	24	10	2	0	0	0	0	0	0									65

TRAFFIC FLOW BY DIRECTION



Direction	Hour	Count	2-way	50th% Speed	85th% Speed
North	9	187	A.M.	35.6	41.0
South	18	189	P.M.	34.6	39.4

